



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/645,125

08/21/2003

Daniel C. Birkestrand

ROC920030189US1

7107

46797 7590 10/26/2007

IBM CORPORATION, INTELLECTUAL PROPERTY LAW  
DEPT 917, BLDG. 006-1  
3605 HIGHWAY 52 NORTH  
ROCHESTER, MN 55901-7829

EXAMINER

ZHE, MENG YAO

ART UNIT

PAPER NUMBER

2195

MAIL DATE

DELIVERY MODE

10/26/2007

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/645,125

Applicant(s)

BIRKESTRAND ET AL.

Examiner

MengYao Zhe

Art Unit

2195

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 13 August 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-37 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 August 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### DETAILED ACTION

1. Claims 1-37 are presented for examination.

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-37 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- a. The following claim languages are unclear and indefinite:

- i) Claim 1, line 2, it is unclear what a grid is. Furthermore, it is unclear how the grid is related to "a system" online 2 <i.e. is the grid part of the system?>.

It is not clearly understood as to what the distinction is between "a grid" that provides resources and "on-demand resources" <i.e. while the amended claim clarifies that on-demand resources are available to the system and is controlled by a manufacturer of the system, the claim is still unclear when it comes to defining a grid. It seems that the grid also provides resources to the system. How is this different from an on-demand resource? Is the grid not controlled by a manufacturer of the system?>

Claims 10, 14, 23, 30, and 36 have the same deficiencies as claim 1 above.

ii) Claim 20, line 3, it is uncertain how to "recoup costs associated with enabling the on-demand resources" <i.e. does the rate determiner charge less for on-demand resources? The entire claim is ambiguous in its phrasing.>.

***Claim Rejections - 35 USC § 102***

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1-6, 8-9, 17, 23-26, 28-30, 32, and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Camble et al., Pub No. 2003/0135580 (hereafter Camble).

6. As per claims 1, 23, 30, and 36, Camble teaches a method for expanding resources available to a logical partition (Para 18, lines 22-27) on a system associated with a client, the method comprising:

associating partition resources of the logical partition with a grid (Para 18, lines 22-27; Para 19, lines 8-11);

providing grid resources from the grid to the logical partition based upon usage of the partition resources, wherein the grid resources are available to the logical partition (Para 19, lines 8-15, 20-23: the subset of the reserved resources corresponds to grid resources);

providing on-demand resources to the logical partition based upon the usage of the partition resources and a usage of the grid resources when the grid resources are available to the logical partition, wherein the on-demand resources are available to the system, and access to the on demand resources is controlled by a manufacturer of the system (Para 14, lines 8-11; Para 19, lines 24-29; Para 21, lines 1-6).

7. As per claims 2, 24, Camble teaches comprising metering a usage of the grid resources by the client to determine a cost to assess the client (Para 21, lines 1-6).

8. As per claims 3, 25, Camble teaches metering usage of the on-demand resource by the client to determine a cost to assess the client (Para 21, lines 1-6).

9. As per claims 4, 26, Camble teaches wherein associating partition resources comprises enabling allocation from the grid resources to the logical partition (Para 19, lines 8-8-14; Para 21, lines 1-6).

10. As per claim 5, Camble teaches wherein associating partition resources comprises registering with the grid at least a portion of partition resources associated with the logical partition, to allow the portion to be allocated to other logical partitions associated with the grid (Para 20, lines 25-32).

11. As per claim 6, Camble teaches wherein providing grid resources comprises: determining an unallocated portion of grid resources and allocating the unallocated portion of the grid resources to the logical partition (Para 21, lines 1-6).

12. As per claims 8, 28, 32, Camble teaches wherein providing on-demand resources comprises: determining that use of partition resources has at least reached a partition utilization threshold; determining that sufficient resources are unavailable from the grid resources; and allocating an unallocated portion of the on-demand resources to the logical partition (Para 12, lines 8-11; Para 21, lines 1-6: as the subset of the reserved resources, which corresponds to the grid resources, fills up, the remaining portion of the reserved resources, which corresponds to the on-demand resources, are used.).

13. As per claims 9, 17, 29, Camble teaches wherein providing on-demand resources further comprises: determining that usage of the grid resources has at least reached a grid utilization threshold; requesting an enablement code to enable the on-

demand resources; and allocating an unallocated portion of the on-demand resources to the logical partition (Para 24, lines 1-12; Para 26, lines 1-10).

***Claim Rejections - 35 USC § 103***

14. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

15. Claims 7, 10-16, 18-22, 27, 31, 33-35, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Camble et al., Pub No. 2003/0135580 (hereafter Camble) in view of Lumelsky et al., Patent No. 6,460,082.

16. Lumelsky was cited in the last office action.

17. As per claims 7, 10, 14, 15, 16, 21, 22, 27, 31, Camble teaches a method for expanding resources available to logical partitions on a system associated with a client, the method comprising:

registering resources with a grid as grid resources (Para 18, lines 22-27; Para 19, lines 8-11);

allocating on-demand resources to the logical partition after the logical partition

Art Unit: 2195

reaches a utilization threshold for the grid resources, wherein the on-demand resources are available to the system, and access to the on demand resources is controlled by a manufacturer of the system (Para 14, lines 8-11; Para 19, lines 24-29; Para 21, lines 1-6: the amount of subset of reserved resources corresponds to the threshold);

billing the client for usage of the on-demand resources (Para 21, lines 1-6).

Camble does not teach allocating grid resources to the logical partition after utilization of partition resources by the logical partition reaches a first utilization threshold.

However, Lumelsky teaches allocating grid resources to the logical partition after utilization of partition resources by the logical partition reaches a first utilization threshold (Column 12, lines 38-45; Column 14, lines 35-43, 58-67) for the purpose of establish an overflow pool incase more resources are needed to provide run-time resource compensation.

It would have been obvious to one having ordinary skill in the art at the time of the applicant's invention to combine the teachings of Camble with allocating grid resources to the logical partition after utilization of partition resources by the logical partition reaches a first utilization threshold, because it allows the establishment of an overflow pool incase more resources are needed to provide run-time resource compensation.

Art Unit: 2195

18. As per claims 11, 19, 20, Camble teaches billing the client for usage of the grid resources to offset a cost associated with enabling the on-demand resources (Column 21, lines 1-6).

19. As per claim 12, Lumelsky teaches the method of claim 10, wherein billing the client for usage of the on-demand resources comprises billing the client for the on-demand resources allocated to the logical partition based upon actual usage of the on-demand resources (Column 21, lines 1-6).

20. As per claim 13, Lumelsky teaches the method of claim 10, wherein billing the client for usage of the on-demand resources comprises billing the client for the on-demand resources allocated to the logical partition based upon a quantity of the on-demand resources allocated and the amount of time for which the quantity of the on-demand resources are allocated. *(Figure 2, unit 152: it has a cost per minute associated with it.)*

21. As per claim 18, Lumelsky teaches a second rate for the grid resources. *(Figure 2: It is inherent in Lumelsky's teaching that a second rate exists since each service unit has its own cost associated with it, and a request may require multiple service units.)*

Art Unit: 2195

22. As per claim 33, Lumelsky further teaches the threshold comprising an amount of resources used during a predetermined amount of time. (*Column 8, lines 39-60: resource usage is fixed to a number of time intervals allowed for usage.*)

23. As per claims 34, 37, Camble teaches a first fee and a second fee. (*Para 19, lines 11-12; Para 21, lines 1-6*).

24. As per claim 35, Camble in view of Lumelsky does not specifically teach wherein at least one of the first fee and the second fee vary based on a factor chosen from the group consisting of a time of day and a time of year. However, it would have been obvious to one having ordinary skill in the art of computing resource provisioning to vary to the fee according to demands and needs for the purpose of maximizing profits over time.

***Response to Arguments***

25. Applicant's arguments filed on 8/13/2007 regarding to claims 1-37 have been fully considered, but they are moot in view of the new ground of rejection.

***Conclusion***

26. Applicants' amendments necessitated the new grounds of rejection presented in this office action. Accordingly, **THIS ACTION IS MADE NON-FINAL**. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MengYao Zhe whose telephone number is 571-272-6946. The examiner can normally be reached on Monday Through Friday, 10:00 - 8:00

Art Unit: 2195

EST. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached at 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.



**MENG-AL T. AN**  
**SUPERVISORY PATENT EXAMINER**  
**TECHNOLOGY CENTER 2100**